A HOSPITAL-BASED CLINICAL STUDY OF PITYRIASIS ROSEA IN CHILDREN

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ABSTRACT

BACKGROUND

Pityriasis rosea is a benign, acute, self-limiting papulosquamous disorder affecting mainly children and young adults. There is a definite scarcity of studies on childhood Pityriasis rosea.

The aim of the study is to study the clinical profile of Pityriasis rosea in the paediatric age group.

MATERIALS AND METHODS

The present observational study was conducted in the Department of Dermatology, Assam Medical College and Hospital, Dibrugarh, during a period of 12 months from June 2014 to May 2015. All children up to 13 years presenting with Pityriasis rosea in the Dermatology Outpatient Department of Assam Medical College and Hospital, Dibrugarh, for the period of one year were taken as study subjects. A detailed history was taken and clinical evaluation was done. Relevant investigations were carried out whenever necessary and the findings were recorded in a proforma for analysis and interpretation of data.

RESULTS

Our study showed the overall occurrence of Pityriasis rosea to be 0.72% among all the paediatric dermatoses. Male cases slightly outnumbered females with a ratio of 1.14:1. Arms, chest and back were the most common sites to be involved. Herald patch was present 33.33% cases, trunk being the most common site. Pruritus was noted in 73.33% of the childhood Pityriasis rosea cases. Maximum number of cases was noted in autumn.

CONCLUSION

Comparative studies with the adulthood form and prospective long duration studies with a larger sample size from various parts of the world are required for better understanding of childhood Pityriasis rosea and to note any geographical and seasonal influences.

KEYWORDS

Children, Pityriasis Rosea, Paediatric Dermatoses, Herald Patch.


BACKGROUND

Pityriasis rosea is a benign, acute, self-limiting papulosquamous disorder probably of infective aetiology affecting mainly children and young adults with none or minimal constitutional symptoms. It is characterised by a distinctive skin eruption with a herald patch at the onset followed by secondary eruptions oriented along the lines of skin cleavages presenting as small, discrete, round to oval erythematous skin lesions with collarette scaling. The lesions mainly affect the trunk and proximal aspects of extremities. Spontaneous remission usually occurs within 6-12 weeks of onset of the rash.¹

Pityriasis rosea is suspected to be related to viral infections. Although, Human Herpes Virus-7 (HHV-7) has been found by polymerase chain reaction in the skin and blood of the affected patients.² Other investigators have found either no evidence of HHV-7 or the presence of both HHV-7 and HHV-6 implying that Pityriasis rosea may result from several causative agents.

There is a definite scarcity of studies on Pityriasis rosea in children. A clinical study of childhood Pityriasis rosea will help dermatologists understand better the disease in children and note the similarities and differences from adulthood form if any.

The aim of this study was to investigate the clinical profile of Pityriasis rosea in the paediatric age group.

MATERIALS AND METHODS

The present observational study was conducted in the Department of Dermatology, Assam Medical College and Hospital, Dibrugarh, during a period of 12 months from June 2014 to May 2015. All children up to 13 years presenting with Pityriasis rosea in the Dermatology Outpatient Department of Assam Medical College and Hospital, Dibrugarh, for the period of one year were taken as study subjects. A detailed history along with drug history was taken and general, systemic and cutaneous examination was done. Relevant investigations were carried out whenever necessary and the findings were recorded in a proforma for analysis and interpretation of data.
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**RESULTS**

During the study period, 2094 paediatric patients attended our Dermatology Outpatient Department. Of these, 15 had Pityriasis rosea. Thus, the occurrence of Pityriasis rosea in the outpatient paediatric population was 0.72%.

Male cases (8; 53.33%) with Pityriasis rosea outnumbered females (7; 46.67%); male-female ratio being 1.14:1. Maximum number of cases of Pityriasis rosea were seen in patients from 9-13 years of age (10; 66.67%) followed by cases in 5-8 years (5; 33.33%). There were no cases in the 0-4 year age group. Mean age of onset was found to be 9.5 years. The youngest patient was 5 years old.

The age and sex distribution of Pityriasis rosea in children is shown in Table 1.

<table>
<thead>
<tr>
<th>Age Group (in Years)</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5-8</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>9-13</td>
<td>6</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>7</td>
<td>15</td>
</tr>
</tbody>
</table>

*Table 1. Age and Sex Distribution*

The arms (14; 93.33%) were the most common sites to be involved followed closely by chest (13; 86.67%) and back (13; 86.67%). The sites involved are shown in Table 2.

<table>
<thead>
<tr>
<th>Sites</th>
<th>Number (N)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face</td>
<td>4</td>
<td>26.67</td>
</tr>
<tr>
<td>Neck</td>
<td>6</td>
<td>40.00</td>
</tr>
<tr>
<td>Arms</td>
<td>14</td>
<td>93.33</td>
</tr>
<tr>
<td>Forearms</td>
<td>3</td>
<td>20.00</td>
</tr>
<tr>
<td>Chest</td>
<td>13</td>
<td>86.67</td>
</tr>
<tr>
<td>Back</td>
<td>13</td>
<td>86.67</td>
</tr>
<tr>
<td>Thighs</td>
<td>5</td>
<td>33.33</td>
</tr>
</tbody>
</table>

*Table 2. Sites Involved in Pityriasis Rosea*

Herald patch was present in 5 cases constituting 33.33% of all the cases of Pityriasis rosea. Of these 5 cases, 4 of them had the herald patch in the trunk constituting 80% of the cases with herald patch while in 1 patient the herald patch was located in the forearm. Preceding history of upper respiratory tract infection was present in 2 cases of Pityriasis rosea thereby constituting 13.33% of all the cases of Pityriasis rosea. Pruritus was found to be present in 11 cases constituting 73.33% of the cases with Pityriasis rosea. 2 cases presented with inverse Pityriasis rosea constituting 13.33% of the cases of Pityriasis rosea. Maximum number of cases (5; 33.33%) presented in autumn followed by equal number of cases (4; 26.67%) each in the summer and winter months. The season-wise distribution is shown in Table 3.

<table>
<thead>
<tr>
<th>Season</th>
<th>Number (N)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring (Mar-Apr)</td>
<td>2</td>
<td>13.33</td>
</tr>
<tr>
<td>Summer (May-Aug)</td>
<td>4</td>
<td>26.67</td>
</tr>
<tr>
<td>Autumn (Sept-Nov)</td>
<td>5</td>
<td>33.33</td>
</tr>
<tr>
<td>Winter (Dec-Feb)</td>
<td>4</td>
<td>26.67</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100</td>
</tr>
</tbody>
</table>

*Table 3. Season-Wise Distribution in Pityriasis Rosea*

**DISCUSSION**

In a survey by Nanda et al.\(^7\) in Kuwait, Pityriasis rosea constituted 1.2% of 10,000 consecutive new patients seen in paediatric dermatology clinic. In a study by Karthikeyan et al.\(^8\) in South India reported that Pityriasis rosea constituted 0.2% of the paediatric dermatoses. In our study, Pityriasis rosea constituted 0.72% of the paediatric dermatoses.

Our study showed an increased incidence of Pityriasis rosea in the autumn (33.33%) and winter (26.67%) months, almost similar to Gunduz et al.\(^9\) who also observed an increased incidence during winter (35%) and autumn (23%) months.
Most patients of Pityriasis rosea are between the age of 10 and 35 years with a peak of around 20-24 years of age, but Pityriasis rosea has been reported in patients ranging from 3 months to 83 years. The incidence of Pityriasis rosea in children less than 4 years is 4% and 45% in patients less than 19 years old. The youngest patient with Pityriasis rosea was reported to be 3 months old. In a study on Pityriasis rosea by Egwin et al., out of 50 patients with Pityriasis rosea, 16 (32%) patients were in the age group of 11-20 years. Gunduz et al. reported that the age distribution showed a peak at 6-11 years (49%). Maximum number of cases of Pityriasis rosea were seen in patients from 9-13 years of age (10; 66.67%) in our study. Mean age of the patients was 8±4.3 years in the study by Gunduz et al. Mean age of onset was found to be 9.5 years in our study.

In a study by Sharma et al., out of 28 children with Pityriasis rosea, there were 17 boys and 11 girls; male-to-female ratio being 1.5:1. In a study by Gunduz et al., there were 27 boys and 24 girls; male-to-female ratio was 1.1:1.0. In our study, males (8; 53.33%) slightly outnumbered females (7; 46.67%); male-to-female ratio being 1:1.4:1, which is similar to the study by Gunduz et al.

Gunduz et al. in their study noted a history of upper respiratory tract infection in 33% of the patients whereas in our study preceding history of upper respiratory tract infection was noted in only 13.33% of all the cases of Pityriasis rosea. In a study by Chuang et al., 12% cases of Pityriasis rosea experienced infection, mostly upper respiratory tract infection within 3 months of diagnosis of Pityriasis rosea.

In the study by Gunduz et al., herald patch was noted in 45% of the patients, which was located most often on the trunk. Our study revealed herald patch to be present in 33.33% of all the cases of Pityriasis rosea and trunk was found to be the most common site for herald patch.

High prevalence of pruritus was reported in childhood Pityriasis rosea cases (69%) by Gunduz et al. Even our study recorded pruritus in 73.33% of the cases, thus indicating pruritus to be more common in childhood Pityriasis rosea.

**CONCLUSION**

The present study reveals the occurrence of childhood Pityriasis rosea amongst the children visiting the Dermatology Outpatient Department. The course and presentation of the disease was found to be almost similar to the adult-onset form. Pruritus was commonly noted in childhood Pityriasis rosea. Comparative studies with the adulthood form will better establish the differences. Prospective long duration studies with a larger sample size from various parts of the world are required for better understanding of childhood Pityriasis rosea and to note any geographical and seasonal influences.

**REFERENCES**


